

Tropiduchidae (Fulgoroidea: Homoptera) from the Mascarenes

by

J. R. WILLIAMS

Mauritius Sugar Industry Research Institute, Réduit, Mauritius

Nine species of Tropiduchidae from the Mascarenes are described, four of them being new, and five new genera are proposed, namely *Pseudoclardea*, *Idiomictus*, *Aethomictus*, *Cyrtomycta* and *Cuneiceps*. The species are *Clardea unicolor* Signoret, *Pseudoclardea leguati* (Muir), comb. nov., *Idiomictus nigrostriatus* (Synave), comb. nov., *I. simus* spec. nov., *I. notatulus* (Stål), comb. nov., *Aethomictus viridus* spec. nov., *Conchyoptera unicolor* Signoret, *Cyrtomycta perisema* spec. nov. and *Cuneiceps insularis* spec. nov. *Clardea mauritii* Synave is synonymised with *Clardea unicolor* Signoret. All are indigenous to the Mascarenes and frequent only indigenous Mascarene plants.

Six species of Tropiduchidae have been earlier recorded from the Mascarenes, five of them having been assigned to the genus *Clardea*, the sixth being *Conchyoptera unicolor* Signoret. *Laberia palliata* Stål, which was described, probably in error, from Mauritius (Stål 1866), and which has sometimes been considered a tropiduchid (Melichar 1923; Fennah 1958), is in fact a nogodinid (Fennah 1978). These previous records of Mascarene Tropiduchidae are as follows:

<i>Conchyoptera unicolor</i> Sign.	— Réunion (and Madagascar)
<i>Clardea unicolor</i> Sign.	— Réunion
<i>C. notatula</i> Stål	— Réunion
<i>C. mauritii</i> Syn.	— Mauritius
<i>C. nigrostriata</i> Syn.	— Mauritius
<i>C. leguati</i> Muir	— Rodriguez

The present paper is based upon a study of some 200 specimens obtained during collections made in the three main Mascarene islands between 1971 and 1980. The species named above are all represented in this collection, but *Clardea mauritii* is here considered a synonym of *Clardea unicolor*. In addition, four new species are represented.

The descriptions of the previously known species, in particular those described in the 19th century, leave much to be desired, and species have been assigned to *Clardea* that are not, in the author's opinion, congeneric with the type-species, *C. unicolor* Signoret. Consequently, the previously known species have been redescribed and their affinities reassessed. This has resulted in the reversion of *Clardea* to a

monotypic genus and the erection of two new genera to accommodate the other species formerly assigned to it.

As far as is known, Mascarene Tropicoduchidae are all indigenous or endemic and are confined to the islands' native vegetation. Accordingly, in Mauritius and to an even greater extent in Rodriguez, where such vegetation has been drastically reduced, they are not readily encountered and some may be on the verge of extinction.

FAMILY TROPIDUCHIDAE Stål

CLARDEA Signoret

Clardea Signoret, 1862: 30.

Type-species: *Clardea unicolor* Signoret (by monotypy)

Head projecting before the eyes for half the length of an eye or a little less (0.4–0.5); apex broadly convex in dorsal view and in profile, forming a smooth surface interposed between the discal areas of the vertex and frons; vertex and frons not otherwise separated and their lateral carinae percurrent. Vertex in dorsal view with lateral margins straight, or gently convex, and subparallel; posterior margin deeply angulately excavate, each side usually sinuous, sometimes nearly straight; disc depressed, lateral margins of depression incurving anteriorly and meeting medially to form a single complete arc; median carina raised, not reaching anterior margin of discal depression. Frons with a flattened median ridge of uniform width; disc shallowly depressed between median ridge and lateral margins; lateral margins slightly concave and diverging to become prominently convex before converging to the clypeus. Clypeus ridged medially and slightly depressed between median ridge and lateral margins. Rostrum not attaining post-trochanters. Antennae with second segment subglobose, almost as broad as long. Ocelli conspicuous. Pronotum between eye and tegula as long as tegula and longitudinally carinate; disc as wide as or slightly wider than overall length, with lateral carinae straight or gently convex and converging anteriorly before incurving to meet angulately, its posterior margin angulately excavate without or with only a slight median indentation, deeply depressed between median and lateral carinae and with an impression on each side. Mesonotum as wide as long; disc much longer than wide (1.5–1.7:1), its length about twice overall length of pronotal disc, its lateral carinae incurving evenly anteriorly. Metatibiae with three lateral and seven apical spines, basal metatarsal segment with six apical spines. Tegmina well surpassing extremity of abdomen, about three times as long as broad, widening gradually distad to reach widest point just after the node, costal margin gently convex basally then straight to beyond node, apex broadly rounded; costa obsolescent but distinct except basally, costal area narrow with several transverse veins, costal cell with several incomplete transverse veins arising from costa; Sc+R and M forking at node; Cu₁ forking well before level of junction of claval veins, which is well beyond middle of clavus; veins at node forming a zigzag transverse line; transverse veins beyond node faint; with six subapical cells and about fifteen apical cells; apical cells large. Wings ample.

Anal segment of male short. Pygofer with dorsolateral angles produced, in profile forming a stubby downwardly directed hook. Aedeagus laterally compressed, strongly upcurved, apex slightly asymmetrical with two slender pointed processes.

Genital styles more or less ovate in profile, with a pointed prominence on dorsal margin distad of which is a double-pronged spur with one tooth directed dorsad and the other laterad.

Pregenital sternite of female with posterior margin straight. Third valvulae of ovipositor with about seven inwardly directed teeth at apex.

The type-species, *Clardea unicolor* from Réunion, was described by Signoret as 'jaune uniforme dans toute son étendue' and was also illustrated as such. There is no reason to question Signoret's description, and one of his specimens (a female from the Signoret Collection in the Naturhistorisches Museum, Vienna) seen by the author, and illustrated in figs 1-4, shows no trace of dark pigment. Stål (1866) described the species as pallid-testaceous with the basal lateral margins of the vertex dark sanguineous.

Synave (1960) described *C. mauritii* from Mauritius as a distinct species solely on the basis of its pigmentation. His description was derived from five specimens all collected from the same locality on the same date, yet even so they differed in pigmentation, although none fitted the colour of *C. unicolor* as described by Signoret or Stål.

Twenty-two specimens collected in Mauritius by the author conform morphologically with *C. unicolor* and *C. mauritii*, but colour variation among them is more pronounced than among Synave's specimens. The least pigmented of these specimens have no distinct pigmentary pattern, and could well be described as almost entirely yellowish or pallid-testaceous, while others either conform more or less with Synave's description of *C. mauritii* or are predominantly very dark fuscous.

Ten specimens collected in Réunion by J. Etienne, morphologically identical with all the aforementioned specimens, are all predominantly very dark, with pigmentary pattern differing only in minor respects from the darker of the Mauritian specimens.

It is therefore considered that *C. unicolor* is an unfortunate misnomer for a variably pigmented species and that *C. mauritii* should be sunk as a synonym of *C. unicolor*. The erection of subspecies based on pigmentary differences does not at present seem justified.

Other species that have been assigned to *Clardea* are *C. leguati* Muir from Rodriguez, *C. notatula* Stål from Réunion, and *C. nigrostriata* Synave from Mauritius. None of these is here considered congeneric with *C. unicolor* and new genera have been proposed for them below. *Clardea* thus becomes a monotypic genus.

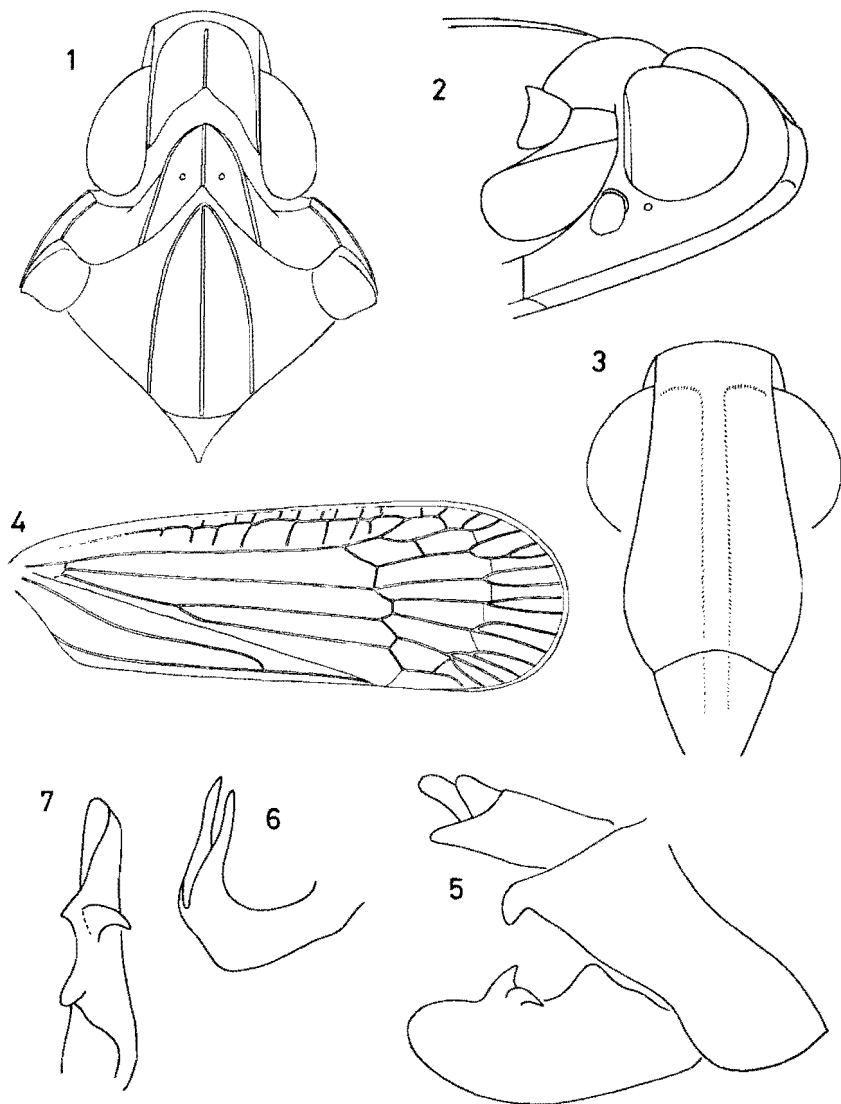
Clardea unicolor Signoret, figs 1-7

Clardea unicolor Signoret, 1862: 30.

Clardea mauritii Synave, 1960: 10. **syn. nov.**

Overall length, incl. tegmina, ♂, 5.5-6.0 mm, ♀ 6.5-7.0 mm.

Pigmentation variable, sometimes almost uniformly stramineous or pallid-testaceous, otherwise patterned stramineous, dark fuscous, sanguineous, green and white. Most frequent pigmentary pattern as follows: vertex laterally and basally, apical area of head, median ridge of frons and clypeus, sides of head above eyes, sanguineous; discal depression of vertex largely, frons except median ridge, sides of head except above eyes, shoulders of pronotum, green (Mauritius) or greenish-white to creamy-



Figs 1-7. *Clardea unicolor* Signoret. 1. Head and thorax, dorsal view. 2. Head and prothorax, side view. 3. Frons. 4. Tegmen. 5. Anal segment, pygofer and genital style of male, side view. 6. Aedeagus, from the right. 7. Genital style of male, dorsal view. (Figs 1-4 drawn from a specimen in the Signoret Collection in the Vienna Museum).

white (Réunion); clypeus except median ridge, pronotum except shoulders, mesonotum, and tegmina except commonly a hyaline patch at middle of costal border, fuscous or dark fuscous.

MATERIAL EXAMINED. MAURITIUS: Macabé 1 ♀ 27.i.74, 5 ♂ 2 ♀ 23.xii.74; Plaine Champagne 1 ♂ 1 ♀ 22.xii.71; Le Petrin 4 ♂ 3 ♀ 17.xii.71, 1 ♀ 9.i.78, 2 ♂ 2 ♀ 14.xi.79; no locality, no date 3 ♂ 1 ♀: all coll. J. R. W. REUNION: Mare Longue 8 ♂ 2 ♀ 18.xii.75, coll. J. Etienne. 2 ♂ 3 ♀ from Mauritius, and 1 ♂ 1 ♀ from Réunion, have been deposited in the British Museum (Natural History).

***PSEUDOCALARDEA* gen. nov.**

Type-species: *Pseudoclardea leguati* (Muir)

Head projecting before the eyes for one-third the length of an eye; apex broadly convex in dorsal view and in profile, forming a smooth surface interposed between the discal areas of the vertex and frons; vertex and frons not separable at apex of head and their lateral carinae percurrent. Vertex in dorsal view with lateral margins straight, or nearly so, and subparallel; posterior margin either angulately excavate with each half sinuous, or roundedly excavate; disc depressed, the depression shaped like an arrowhead, its lateral margins sinuous and converging anteriad; median carina raised, ridge-like, becoming very narrow shortly before attaining the anterior margin of the discal depression. Frons with a flattened very broad median ridge, which narrows abruptly basally and is rounded apically where it ends at the frontoclypeal suture, and broad flattened lateral ridges. Clypeus elevated medially and slightly depressed near lateral margins. Rostrum not attaining post-trochanters. Antennae with second segment subglobose. Ocelli conspicuous. Pronotum between eye and tegula ecarinate, very narrow, having no dorsal plane and forming a sharp ridge; disc much wider than overall length (1.3–1.4:1), with lateral carinae straight or gently convex and converging anteriad before incurving to meet roundedly, its posterior margin angulately excavate and sometimes with a distinct median indentation, deeply depressed between median and lateral carinae and with an impression on each side. Mesonotum slightly wider than long (1.1–1.2:1); disc longer than wide (1.2–1.3:1), length much less than twice overall length of pronotal disc, its lateral carinae incurving evenly anteriad. Metatibiae with three lateral and seven apical spines, basal metatarsal segment with six apical spines. Tegmina short, only slightly surpassing extremity of abdomen, about two and a half times as long as broad, broadest at middle, costal margin sharply convex basally, then gently and evenly convex for the greater part of its length before rounding gradually to the blunt apex; costa distinct except at extreme base, costal area narrow with several transverse veins, costal cell with several incomplete transverse veins arising from costa; Sc+R and M forking at node; Cu₁ forking before, usually well before, level of junction of claval veins, which is well beyond middle of clavus; veins at node forming a transverse zigzag line; transverse veins beyond node faint; with 6–7 subapical cells and about 14 apical cells in both sexes; apical cells small. Wings ample.

Anal segment of male short. Pygofer with dorsolateral angles produced into a downwardly curved hook, dorsad of which is a rounded knob. Aedeagus laterally compressed, upcurved, with a large flat median lobe on upper surface near base, the margin of which is serrated. Genital styles roughly ovate in profile, with a knob-like

prominence on dorsal margin distad of which is a double-pronged spur with one tooth directed dorsad and the other laterad.

Pregenital sternite of female with posterior margin straight. Third valvulae of ovipositor with about seven inwardly directed teeth at apex.

It is with some hesitation that this new genus is proposed for Muir's *Clardea leguati* from Rodriguez, as the species has clear affinities with *Clardea unicolor*, described above. Thus, the tegmina of *leguati*, although reduced, are essentially the same as those of *unicolor*, while the male genitalia of the two species differ only in aedeagal structure. In sum, however, the differences between these species appear to warrant their placement in separate genera. *Pseudoclardea* differs from *Clardea* by (1) the short tegmina with abbreviated apical cells, (2) the lesser prominence of the head in front of the eyes and the narrower genae before the eyes, (3) the complete median carina of the vertex, (4) the greatly expanded median ridge of the frons and the presence of distinct flattened ridges laterally on the frons, (5) the configuration of the pronotum with its broad disc and its compression between eye and tegula, which results in the absence of a longitudinal carina at this point, (6) the relatively short mesonotum and mesonotal disc, and (7) the form of the aedeagus.

Pseudoclardea leguati (Muir) **comb. nov.**, figs 8-14

Clardea leguati Muir, 1925: 468.

Overall length, ♂ 4.5 mm, ♀ 5.0 mm.

Discal depressions of vertex except basally, frons adjacent to frontoclypeal suture, sides of head except near antennae, pale to deep green. Apex of head, frons except adjacent to frontoclypeal suture, vertex along median carina and across bases of discal depressions, sides of head near antennae, most of pronotum, pectoral plates, and patches on mesonotum, dark fuscous. Most of mesonotum ochraceous or stramineous. Tegmina hyaline with two transverse dark fuscous bands, one about $\frac{1}{4}$ from base and widening from costal margin to envelope most of clavus, the other about $\frac{3}{4}$ from base over nodal transverse veins and of more or less uniform width; white basally to first fuscous band and flecked white elsewhere.

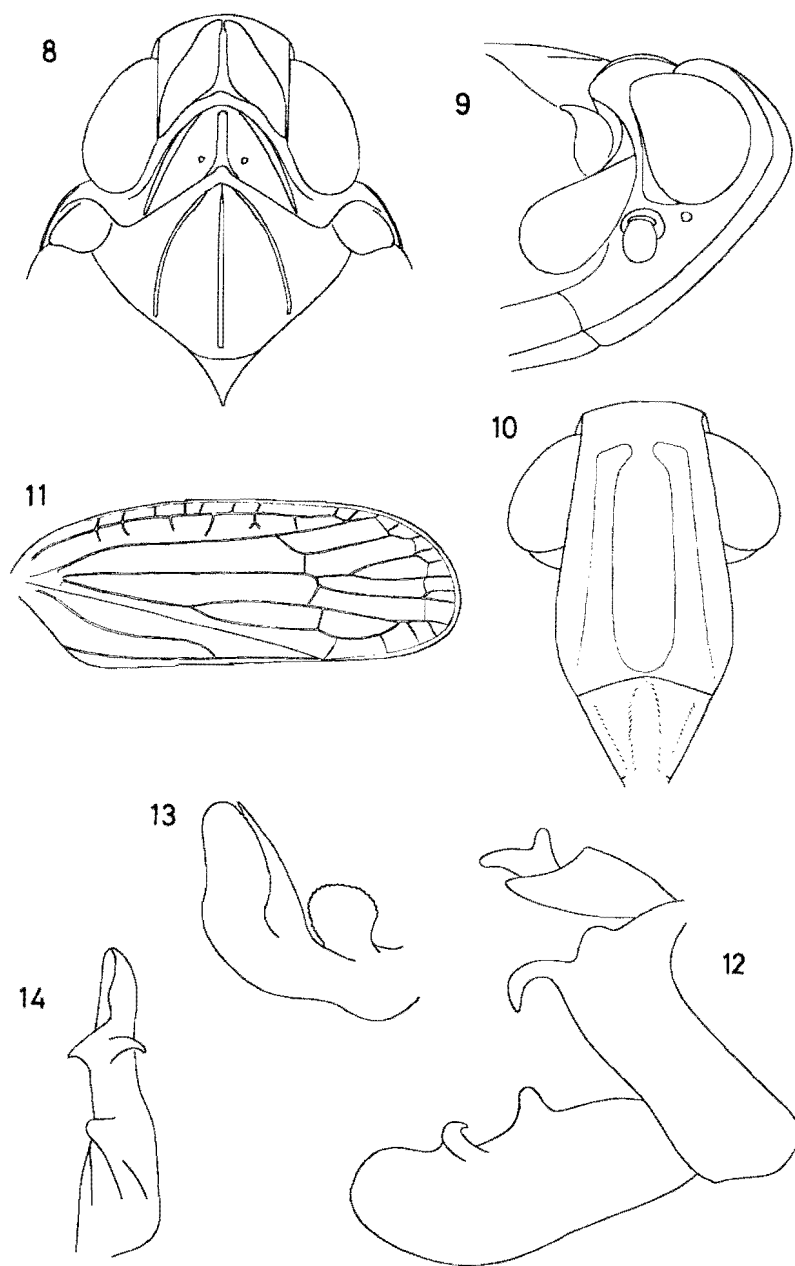
MATERIAL EXAMINED. RODRIGUEZ: Grande Montagne 4 ♂ 4 ♀ ii.80, on *Pyrostria trilocularis* Balf. (Rubiaceae), coll. J. R. W. & H. Dove. 2 ♂ 2 ♀ have been deposited in the British Museum (N.H.).

The species was described by Muir from one male, three females and two specimens without abdomens, all collected in Rodriguez in 1918. The pigmentary pattern of the specimens examined, although showing some variability, is definitive.

IDIOMYCTUS gen. nov.

Type-species: *Idiomycetus nigrostriatus* (Synave)

Head projecting before the eyes for less than half (about 0.4) the length of an eye; apex dome-like, broadly convex in dorsal view and in profile, forming a large smooth surface interposed between the discal areas of the vertex and frons; vertex and frons not separable at apex of head and their lateral carinae percurrent. Vertex in dorsal view with lateral margins straight or nearly so and either parallel or diverging



Figs 8–14. *Pseudoclardea leguati* (Muir). 8. Head and thorax, dorsal view. 9. Head and prothorax, side view. 10. Frons and clypeus. 11. Tegmen. 12. Anal segment, pygofer and genital style of male, side view. 13. Aedeagus, from the right. 14. Genital style of male, dorsal view.

slightly anteriad; posterior margin deeply angulately excavate, each side either sinuous or more or less straight; with two depressions separated by a median ridge, the anterior margins of the depressions rounding to meet the median ridge. Frons with shallowly depressed lateral areas separated by a broad flattened median ridge that widens basally to merge broadly with the indeterminate apical area of the head; lateral margins almost straight or gently concave and diverging to become prominently convex before converging to the clypeus. Clypeus ridged medially and depressed between median ridge and lateral margins. Rostrum not attaining post-trochanters. Antennae with second segment terete and about 1,2 times as long as broad. Ocelli obscure. Pronotum between eye and tegula as long as tegula and longitudinally carinate; disc as wide as or slightly wider than overall length, with lateral carinae straight or gently convex and converging anteriad before incurving to meet angulately or roundedly, its posterior margin angulately excavate with a pronounced median indentation, deeply depressed between median and lateral carinae and with an impression on each side. Mesonotum wider than long (1,2-1,4:1); disc longer than wide (1,2-1,3:1), its length much less than twice overall length of pronotal disc, its lateral carinae incurving evenly anteriad. Metatibiae with three lateral and seven apical spines, basal metatarsal segment with six apical spines. Tegmina short, attaining or just surpassing extremity of abdomen, three times as long as broad, broadest slightly before middle, costal margin convex, particularly in proximal third, apex narrowly rounded; costal vein marginal, costal cell with a few very faint transverse veins; Sc+R forking once at node; M simple or forking once at or beyond node; Cu₁ forking before level of junction of claval veins, which is well beyond middle of clavus; indistinct transverse veins at node and near apex; six or seven cells at apical margin. Wings ample.

Anal segment of male short. Pygofer with dorsolateral angles greatly produced. Aedeagus laterally compressed, upcurved; lateral lobes symmetrical, each apically expanded and truncate in profile and with minute teeth along the dorsal edge. Genital styles with a large pointed prominence on dorsal margin distad of which is a double-pronged spur with one tooth directed dorsad and the other laterad.

Pregenital sternite of female with posterior margin straight or broadly convex. Third valvulae of ovipositor with six or seven inwardly directed teeth at apex.

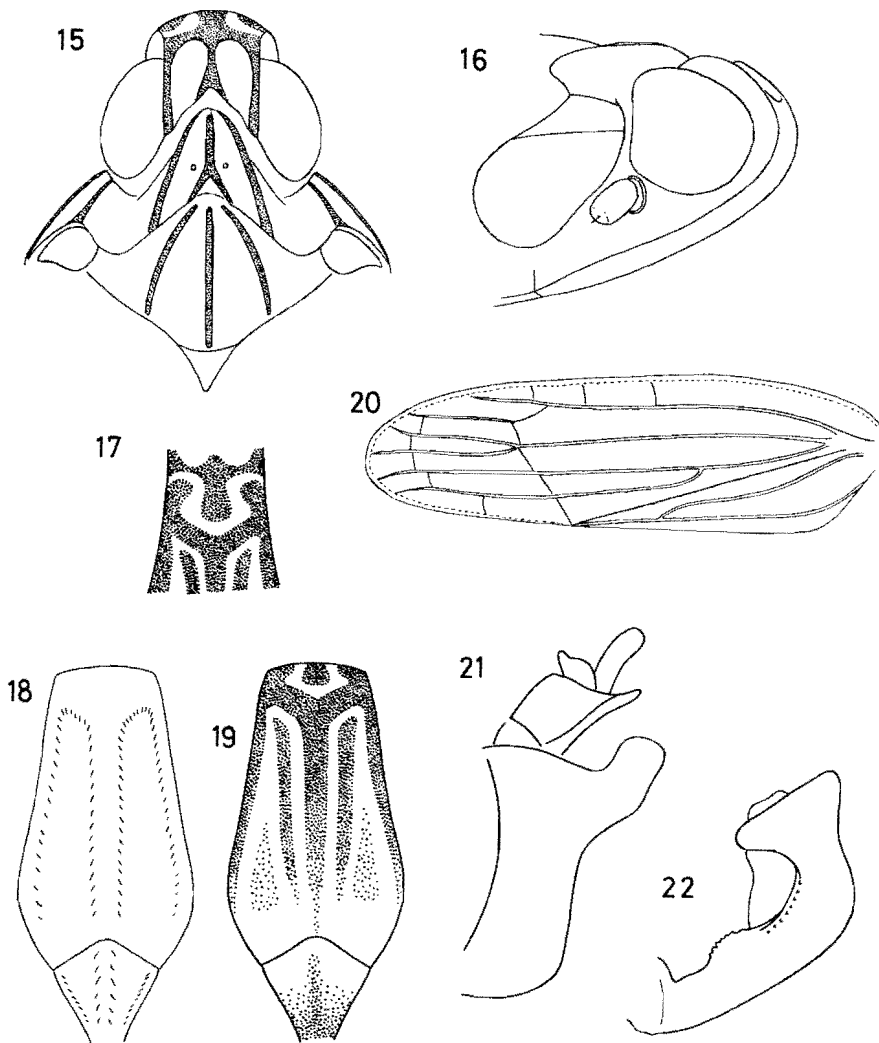
The species of this genus are characterised by the vertex, which has two depressions separated by a median ridge, each depression having a rounded anterior margin; by the median ridge of the frons, which is very wide at its base and hence appears as a ventral extension of the apical area of the head; by the terete second antennal segment; by the apparent absence of ocelli; by the pronounced median indentation of the posterior margin of the pronotum; by the short mesonotum; by the size, shape and venation of the tegmina; and by the form of the aedeagus. In all these characters *Idiomyctus* contrasts with *Clardea*, in which two of the species now assigned to *Idiomyctus* were formerly placed.

Idiomyctus nigrostriatus (Synave) **comb. nov.**, figs 15-22.

Clardea nigrostriata Synave, 1961: 18.

Overall length, incl. tegmina, ♂ c. 5,0 mm, ♀ c. 6,5 mm.

Vertex with median ridge broad; anterior margins of discal depressions seldom semicircular. Frons raised narrowly along lateral margins. Tegmina with transverse veins forming a line at the node; M forking at or just after the node.



Figs 15–22. *Idiomycetus nigrostriatus* (Synave). 15. Head and thorax, dorsal view. 16. Head and prothorax, side view. 17. Apex of head, pigmentary pattern. 18. Frons, showing elevated areas. 19. Frons, pigmentary pattern. 20. Tegmen. 21. Anal segment and pygofer of male, side view. 22. Aedeagus, side view.

Anal segment of male convex at apex in dorsal view. Pygofer with dorsolateral angles digitately produced. Aedeagus with distinct, but low, serrated prominence dorsally at base of each lateral lobe.

Ochraceous or stramineous with fuscous markings and suffusions of variable extent. Distinctive fuscous areas extend typically as follows: around discal depressions of the vertex and forwards medially on the apex of the head; as bands along the lateral margins, along the median ridge and along each side of the median ridge of the frons, the bands ending well before the clypeus but those along the margins and ridge extending on to and merging across the apex of the head; over the distal half of the clypeus; as prominent lines along all carinae of the pronotum and mesonotum; along the veins of the tegmina to the node; diffusely over the membrane of the tegmina basally, near the node, and apically near the costal margin.

MATERIAL EXAMINED. MAURITIUS: Macabé 1 ♂ 2 ♀ 22.x.72, 4 ♂ 1 ♀ 4.xi.73, 3 ♀ 11.xi.73, 4 ♂ 3 ♀ 22.xi.73, 1 ♂ 2.i.74, 3 ♂ 3 ♀ 23.xii.74, 4 ♀ 15.v.75; Plaine Champagne 2 ♀ 8.i.72, 1 ♂ 28.x.72, 1 ♂ 20.xi.72, 1 ♀ 9.xii.72; Mt. Cocotte 1 ♀ 15.xii.73, 1 ♀ 16.ii.74, 1 ♂ 3.xii.75; Le Pouce 2 ♂ 1 ♀ 2.xii.72. All coll. J.R.W. 2 ♂ 2 ♀ have been deposited in the British Museum (N.H.)

***Idiomycetus simus* spec. nov., figs 23–27**

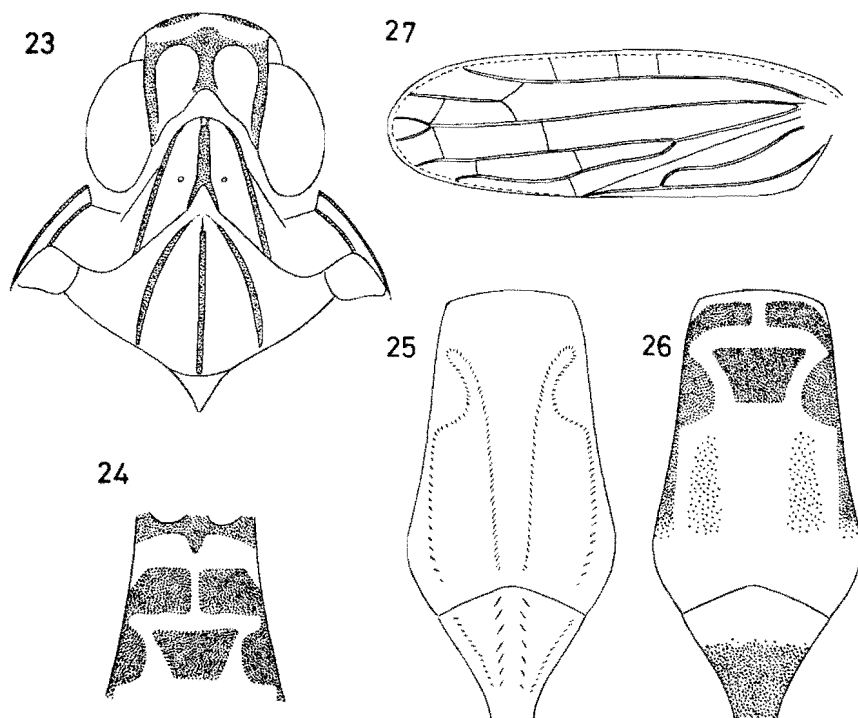
Overall length, incl. tegmina, ♂ c. 5.5 mm, ♀ c. 7.0 mm.

Vertex with median ridge broad; anterior margins of discal depressions semicircular. Frons with semicircular raised areas at lateral margins basally. Tegmina with transverse veins staggered across the node, not forming a continuous line; M simple or forking near the apical margin.

Anal segment of male truncate or concave at apex in dorsal view. Pygofer with dorsolateral angles digitately produced. Aedeagus with distinct, but low, serrated prominence dorsally at base of each lateral lobe.

Ochraceous or stramineous with fuscous markings and suffusions of variable extent. Distinctive fuscous areas extend typically as follows: around discal depressions of the vertex; on the frons as a triangular or trapezoidal patch on the base of the median ridge, sometimes diffusely along the length of the ridge, a semicircular patch against the lateral margins basally at the same level as the median patch, and often a narrow band along the margins to the convexity before the clypeus and a diffuse area in the discal depressions; a broad band, which is often interrupted medially, across the apex of the head and narrowly connected laterally with the semicircular patches of the frons; over the distal half of the clypeus; as prominent lines along all carinae of the pronotum and mesonotum; interruptedly along the entire lengths of the longitudinal veins of the tegmina; diffusely on the membrane of the tegmina particularly basally and near the node.

MATERIAL EXAMINED. MAURITIUS: ♂ Holotype, Le Pouce 8.ii.73, J.R.W. Paratypes, 21 ♂ 5 ♀ 2.xii.72, 2 ♂ 22.vii.72, 1 ♂ 2 ♀ 13.i.73, 1 ♀ 13.iii.75, J.R.W.; 2 ♂ 1 ♀ 7.xii.65, coll. R. Mamet: all same locality as holotype. Holotype and 9 ♂ 5 ♀ paratypes in British Museum (N.H.). Other paratypes in author's collection.



Figs 23–27. *Idiomycetus simus* spec. nov. 23. Head and thorax, dorsal view. 24. Apex of head, pigmentary pattern. 25. Frons, showing elevated areas. 26. Frons, pigmentary pattern. 27. Tegmen.

Idiomycetus notatulus (Stål) **comb. nov.**, figs 28–33

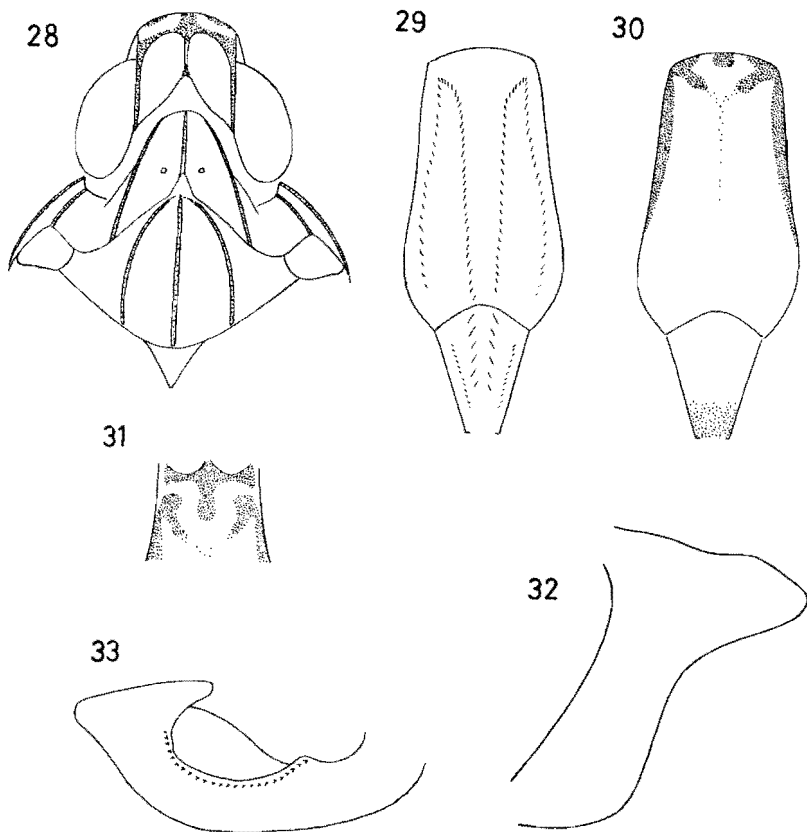
Clardea notatula Stål, 1866: 191.

Overall length, incl. tegmina, ♂ c. 5.0 mm, ♀ 6.0 mm.

Vertex with median ridge narrow; anterior margins of discal depressions not semicircular. Frons raised narrowly along lateral margins. Tegmina with transverse veins forming a line at the node; M forking at or just after the node.

Anal segment of male truncate at apex in dorsal view. Pygofer with dorso-lateral angles triangulately produced. Aedeagus without distinct serrated prominences dorsally at base of lateral lobes.

Ochraceous or stramineous and marked fuscous as follows: vertex narrowly along lateral margins and at the base of the median ridge; apex of the head medially and laterally adjacent to the depressions of the vertex and also laterally nearer to the depressions of the frons; lateral margins of the frons basally; clypeus distally; carinae of the pronotum and mesonotum; tegminal veins to the node; sometimes the tegminal membrane to the node and at the apex.



Figs 28-33. *Idiomycetus notatulus* (Stål). 28. Head and thorax, dorsal view. 29. Frons, showing elevated areas. 30. Frons, pigmentary pattern. 31. Apex of head, pigmentary pattern. 32. Pygofer of male, side view, 33. Aedeagus, side view.

MATERIAL EXAMINED. RÉUNION: Mare Longue 2 ♂ xii.73, coll. J.R.W. & H. Dove. 1 ♂ has been deposited in the British Museum (N.H.)

Stål's type in the Signoret Collection at the Naturhistorisches Museum, Vienna, is a female, and the pattern of fuscous pigmentation on the front of the head (described by Stål as 'fronte basi maculis nonnullis parvis nigris notata') is still clearly visible.

The three species of *Idiomycetus* described are separable at a glance by the markings on the apex of the head and on the frons.

AETHOMYCTUS gen. nov.

Type-species; *Aethomyctus viridis* spec. nov.

Head projecting before the eyes for about half (0.4–0.6) the length of an eye; apex dome-like, broadly convex in dorsal view and in profile; vertex and frons without transverse separation at apex of head, their lateral carinae not percurrent, those of the vertex incurving to form the basal lateral margins of a broad raised ridge running medially down the frons to the frontoclypeal suture. Vertex in dorsal view with lateral margins straight, or slightly convex, and subparallel or diverging slightly anteriorly; posterior margin deeply angulately excavate, each side sinuous; with two depressions that are well separated medially and have rounded anterior margins, the depressions larger relative to the head in the male than in the female. Frons with lateral margins slightly concave basally and diverging to become prominently convex before converging to the clypeus; broadly raised along lateral margins in distal half. Clypeus slightly raised medially and laterally. Antennae with second segment terete, about 1.2 times as long as broad. Ocelli obscure. Pronotum between eye and tegula at least as long as tegula and longitudinally carinate; disc not wider than overall length, with lateral carinae straight or slightly convex and converging anteriorly before incurving sharply and meeting; posterior margin of disc angulately excavate with a pronounced median indentation; disc deeply depressed and trough-like between median and lateral carinae and with an impression on each side. Mesonotum a little wider than long; disc longer than wide (1.3–1.5:1), its length less than one and a half times overall length of pronotal disc, its lateral carinae incurving evenly anteriorly. Metatibiae with three lateral and six (sometimes seven) apical spines, basal metatarsal segment with five apical spines. Tegmina short, slightly surpassing extremity of abdomen, about three times as long as broad, broadest at middle or just before, costal margin convex, apex narrowly rounded; costal vein marginal, costal cell with two or three faint transverse veins distally; Sc+R forking once at node; M simple or forking once at or beyond node; Cu₁ forking before level of junction of claval veins, which is beyond middle of clavus; indistinct transverse veins at node and near apex; six to nine cells at apical margin. Wings ample.

Anal segment of male short. Pygofer with dorsolateral angles greatly produced. Genital styles with a large pointed prominence on dorsal margin distad of which is a double-pronged spur with one tooth directed dorsad and the other laterad.

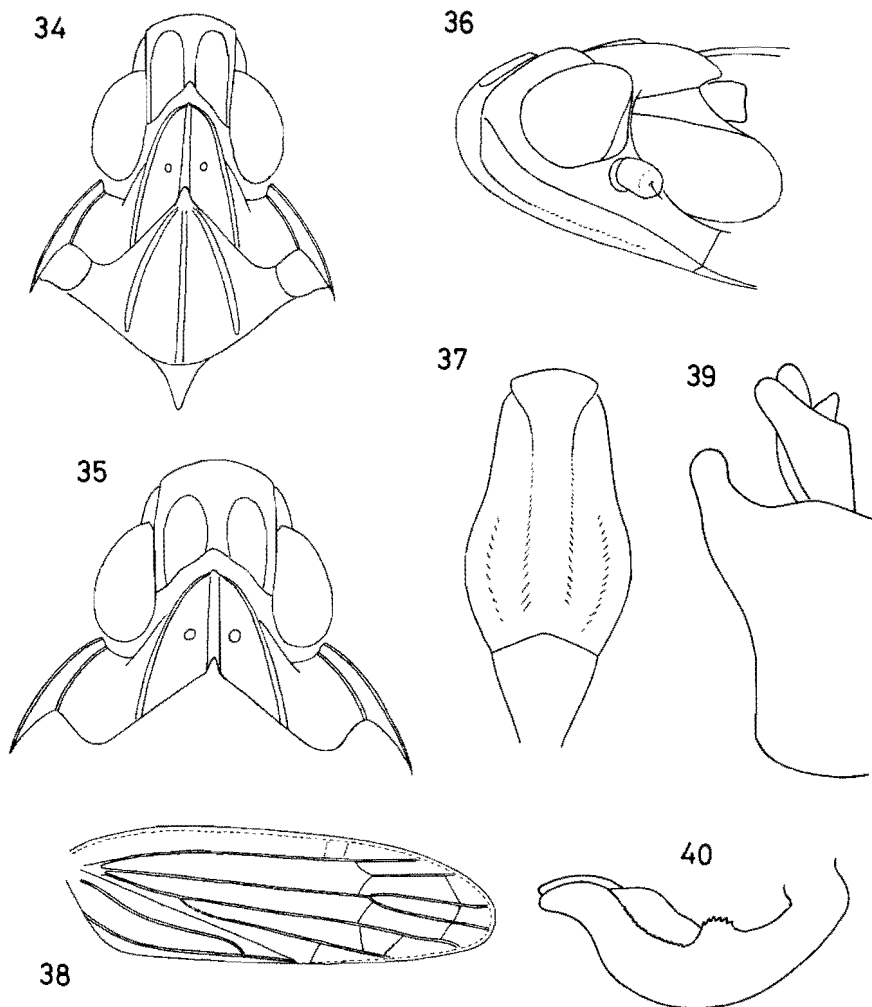
Pregenital sternite of female with posterior margin straight. Third valvulae of ovipositor with about seven inwardly directed teeth at apex.

Aethomyctus is close to *Idiomyctus*, from which it differs by the peculiar configuration of the apex of the head, where the lateral carinae of the vertex and frons are not percurrent. It also differs by the number of apical spines on the metatibia and first metatarsal segment.

Aethomyctus viridis spec. nov., figs 34–40

Length, incl. tegmina, ♂ 5.5 mm, ♀ 7.0 mm.

Anal segment of male in dorsal view apically truncate. Pygofer in profile with dorsolateral angles clavately produced. Aedeagus laterally compressed, upcurved; lateral lobes in profile curved caudad at extremities and bluntly pointed, finely serrated



Figs 34-40. *Aethomyctus viridis* spec. nov. 34. Head and thorax of male, dorsal view. 35. Head and prothorax of female, dorsal view. 36. Head and prothorax of male, side view. 37. Frons. 38. Tegmen. 39. Anal segment and pygofer of male, side view. 40. Aedeagus, from the right.

along part of dorsal margin, the right lobe with a serrated prominence on dorsal margin at base.

Uniformly pale green, except lateral carinae of vertex and frons fuscous, and sometimes fuscous at sides of head around eyes. Tegmina semi-opaque.

MATERIAL EXAMINED. MAURITIUS: ♂ Holotype, Mt. Cocotte 8.ix.73, coll. J.R.W. Paratypes 1 ♂, same data as holotype; Le Pouce 1 ♀ 13.i.73, coll. J.R.W., 1 ♂ 1 ♀ 17.ix.63, coll. C. M. Courtois. Holotype with 1 ♂ and 1 ♀ paratype in British Museum (N.H.). Other paratypes in author's collection.

CONCHYOPTERA Signoret

Type-species: *Conchyoptera unicolor* Signoret (by monotypy)

Body in profile with head uplifted, prow-like. Head projecting before eyes for 1.5–3.0 times the length of an eye. Vertex with lateral margins basally or entirely convex, widest at front of eyes and converging anteriorly to a narrow blunt apex; overall length 2–3 times greatest width and sometimes exceeding the combined lengths of pronotum and mesonotum, length in midline 1.5–2.5 times greatest width; posterior margin deeply angulately excavate, its sides usually sinuous; median carina complete and abruptly raised from the disc, which is tectiform; lateral carinae slightly raised, meeting the lateral carinae of the frons at a very acute angle well before the apex of the head. Frons long, length 2.5–4.0 times greatest width; lateral margins sinuous, diverging from apex, concave at level of eyes, then diverging further to reach their widest point near the clypeus; median ridge of more or less uniform width, greatly raised near the apex of the head and progressively less so towards the clypeus; disc tectiform before level of eyes, becoming flattened behind that level where the lateral margins become slightly raised. Clypeus slightly raised medially. Rostrum attaining post-trochanters. Antennae with second segment terete, length about 1.7 times width. Ocelli absent. Pronotum with a longitudinal carina between eye and tegula; disc with lateral carinae convex and converging anteriorly, or nearly straight before incurving anteriorly, both median and lateral carinae moderately raised, an impression on each side of median carina, posterior margin angulately excavate with a median indentation. Mesonotum with lateral carinae incurving evenly anteriorly. Metatibiae with three lateral and six apical spines, basal metatarsal segment with five (rarely six) apical spines. Tegmina coriaceous, short, extending to or slightly surpassing extremity of abdomen, 3.0–3.5 times as long as broad, costal margin entirely convex, widest at or just before the middle, apex narrowly rounded; costal vein marginal, costal cell with a few very faint transverse veins distally; Sc+R simple or forking near apex; M forking at or beyond level of nodal transverse veins; Cu₁ forking well before level of junction of claval veins, which is beyond middle of clavus; transverse veins not always forming a transverse line across node; five or six cells at apical margin. Wings ample.

Anal segment of male short, apex rounded in dorsal view. Pygofer with dorsolateral angles produced. Genital styles with a large pointed prominence on dorsal margin proximally, distad of which is a double-pronged spur with one tooth directed dorsad and the other laterad.

Pregenital sternite of female with posterior margin straight. Third valvulae of ovipositor with six or seven inwardly directed spines at apex.

Conchyoptera unicolor Signoret, figs 41-48***Conchyoptera unicolor*** Signoret, 1860: 185.

Length, incl. tegmina, ♂ 5.5-7.0 mm, ♀ 6.0-8.0 mm.

Pygofer with dorsolateral angles in profile forming an upcurved digitate or clavate prominence. Aedeagus upcurved, lateral lobes in profile apically truncate and expanded, dorsal edge of lobes finely serrated and sometimes a serrated prominence on right lobe basally.

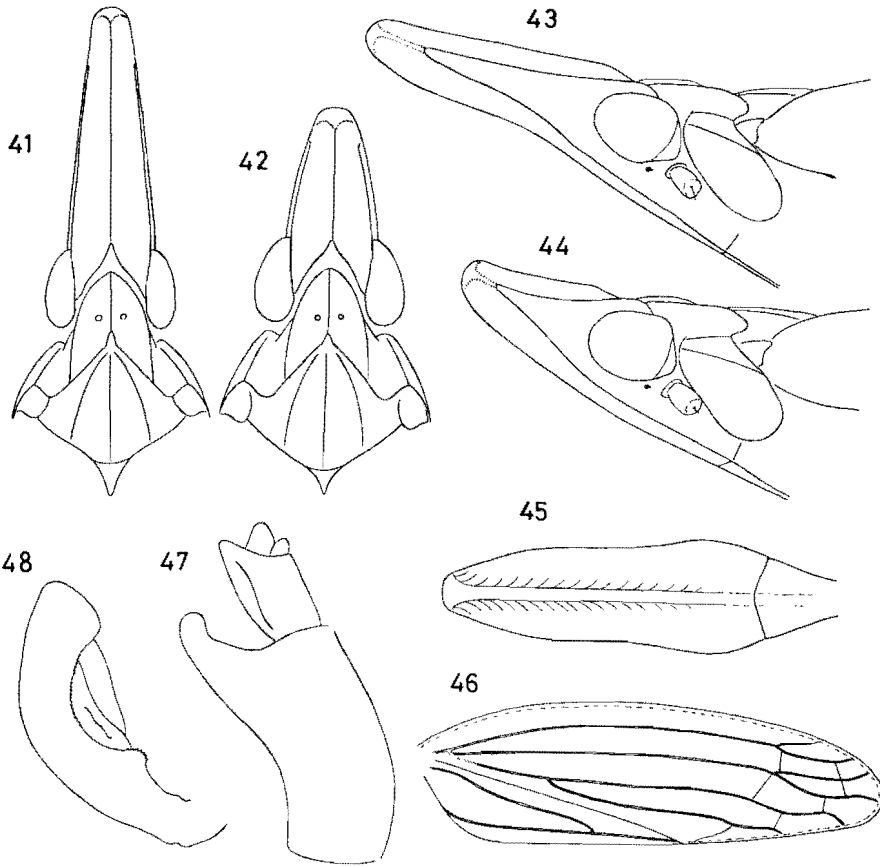
Uniformly green or deep green, vertex and discs of pronotum and mesonotum sometimes suffused fuscous.

MATERIAL EXAMINED. MAURITIUS: Tamarin Falls 1 ♂ 5 ♀ 14.xii.72; Macabé 1 ♂ 5.viii.72, 1 ♂ 24.ii.73, 1 ♀ 23.xii.74; Bris Fer 1 ♀ 18.viii.73; Cabinet 1 ♂ 24.x.72; Le Pouce 1 ♂ 1 ♀ 2.xii.72; Plaine Champagne 1 ♀ 22.xii.71, 1 ♂ 2 ♀ 9.xii.72; Mt. Cocotte 1 ♀ 27.v.73, 1 ♂ 5 ♀ 23.vi.73, 1 ♀ 8.ix.73, 1 ♀ 20.x.73, 1 ♀ 15.xii.73, 1 ♀ 4.v.75, all coll. J.R.W.; Le Pouce 3 ♂ 5 ♀ 7.xii.65, coll. R. Mamet. RÉUNION: Notre Dame 2 ♀, Mare Longue 3 ♂ 2 ♀, Col Belleville 2 ♂ 4 ♀, Bebour 1 ♂, xii.73, coll. J.R.W. & H. Dove. One male and two females from both Mauritius and Réunion deposited in the British Museum (N.H.) and the Naturhistorisches Museum, Vienna.

This species, the only representative of the genus, was described from Réunion and Madagascar and has not hitherto been recorded from Mauritius. The extent to which the head projects forward varies considerably, and the colour in life is usually in deep green, which fades fairly rapidly. Signoret's specimens (in the Naturhistorisches Museum, Vienna) are in poor state, only that from Madagascar being recognisable, although its abdomen is missing.

CYRTOMYCTA gen. nov.Type-species: *Cyrtomycta perisema* spec. nov.

Head projecting before the eyes for about the length of an eye. Vertex with lateral margins convex, diverging to near level of front of eyes then converging to a bluntly pointed apex; about twice as long as broad and about 0.6 times the combined lengths of the pronotum and mesonotum; posterior margin deeply angulately excavate, its sides sinuous; median carina complete; both median and lateral carinae raised and the disc trough-like between them; lateral carinae meeting those of the frons at an acute angle near the apex of the head. Frons about two and a half times as long as broad; lateral margins sinuous, diverging from the apex, slightly concave at the level of the eyes, then reaching their widest point near the clypeus; median carina raised, more so near the apex where the disc is tectiform; lateral carinae only slightly raised. Clypeus with median carina raised, lateral carinae less so. Rostrum not attaining post-trochanters. Antennae with second segment subglobose. Ocelli small but usually distinct. Pronotum with a longitudinal carina between eye and tegula; disc with lateral carinae convex and converging anteriad to meet angulately, median and lateral carinae raised and disc trough-like between them, an impression on each side of median carina, posterior margin angulately excavate with a median indentation. Mesonotum with lateral carinae incurving evenly anteriad. Metatibiae with three lateral and seven apical spines, basal metatarsal segment with six apical spines. Tegmina well surpassing extremity of abdomen, about three times as long as broad, widening gradually distad to reach the widest point after the node, costal margin slightly convex, apex broadly



Figs 41-48. *Conchyoptera unicolor* Signoret. 41-42. Head and thorax, from above, showing extremes of head length. 43-44. Ditto, from the side. 45. Frons. 46. Tegmen. 47. Anal segment and pygofer of male, side view. 48. Aedeagus, from the right.

rounded; costa obsolescent but distinct except basally, costal area narrow with many transverse veins that become progressively more indistinct towards the base of the tegmen, costal cell with several incomplete transverse veins arising from costa; Sc+R forking a little before the node; M forking at the node; Cu₁ forking before level of junction of claval veins, which is beyond the middle of the clavus; a distinct zigzag of veins across the node; many faint, irregularly arranged transverse veins after the node; about fifteen cells at apical margin. Wings ample.

Anal segment of male short. Pygofer with dorsolateral angles produced. Genital styles with a large pointed prominence on dorsal margin proximally, distad of which is a double-pronged spur with one tooth directed dorsad and the other laterad.

Pregenital sternite of female with posterior margin straight. Third valvulae of ovipositor with six or seven inwardly directed teeth at apex.

***Cyrtomycta perisema* spec. nov., figs 49–54**

Length, incl. tegmina, ♂ 6.0 mm, ♀ 7.0 mm.

Anal segment of male roundedly truncate at apex in dorsal view. Pygofer with dorsolateral angles produced into a downwardly directed hook-like extremity. Aedeagus upcurved, laterally compressed, its extremity blunt in profile, with two large cylindroid, slightly clavate dorsal processes near base directed upwards and slightly outwards to form a narrow V when viewed from behind.

Vertex medially, pronotum medially, mesonotum medially, shoulders of pronotum and upper part of pectoral plate, frons and clypeus except median ridge, and sides of head below eyes, green. Vertex laterally, pronotum laterally, mesonotum laterally, lower part of pectoral plate, median ridge of frons and clypeus, sanguineous. Tegmina fuscous, mottled green, with veins ochraceous.

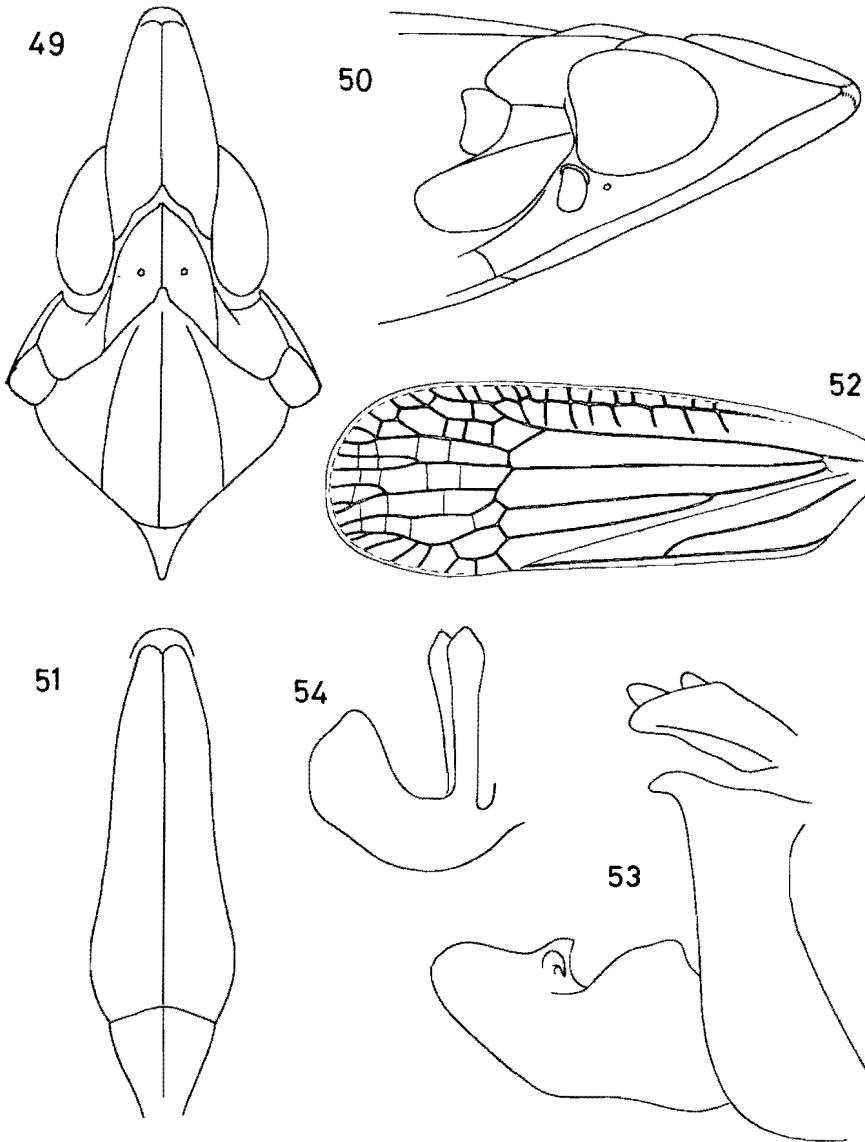
MATERIAL EXAMINED. MAURITIUS: ♂ Holotype, Nicoliere 29.xii.74, coll. J.R.W. Paratypes 6 ♂ 2 ♀, same data as holotype; Mare Longue 2 ♀ 5.ii.63, coll. C. M. Courtois; 1 ♂ 1 ♀ no locality, no date, coll. C. M. Courtois. Holotype with 2 ♂ and 2 ♀ paratypes in British Museum (N.H.). Other paratypes in author's collection.

Despite the form of the head and the distinctive aedeagus, the affinities of this genus may lie with *Clardea*, which it resembles in the form and venation of the tegmina, the shape of the antennae, the acuminate dorsolateral lobe of the pygofer, and in the rostrum not attaining the post-trochanters.

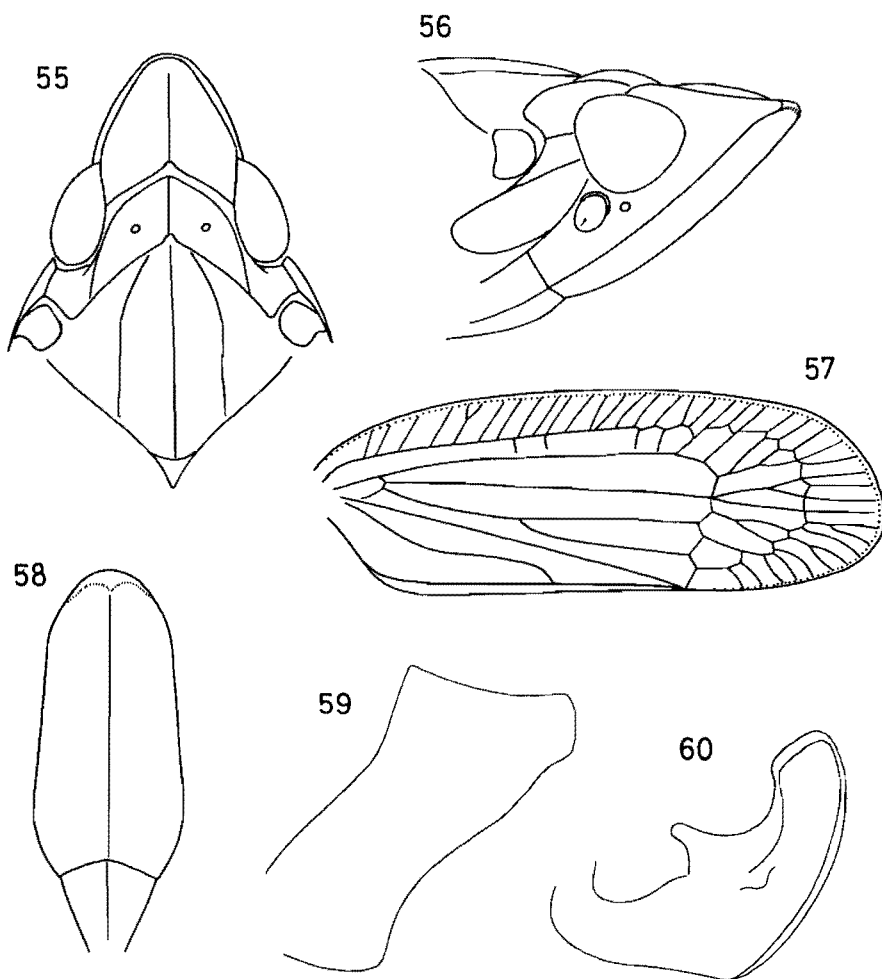
***CUNEOCEPS* gen. nov.**

Type-species: *Cuneiceps insularis* spec. nov.

Head projecting before the eyes for less than (0.8–0.9) the length of an eye. Vertex as long as, or a little longer than, broad; lateral margins basally subparallel or diverging slightly anteriad, then straight and converging from level of front of eyes to a bluntly rounded apex; posterior margin angulately excavate, its sides sinuous; median carina incomplete, not quite reaching apex; median and lateral carinae moderately raised and the disc flat between them. Frons about twice as long as broad; lateral margins diverging sharply from apex, then straight or a little concave for the greater part of their length and diverging slightly to near the clypeus before incurving; median carina sharply raised along entire length of frons; lateral carinae also sharply raised except near the clypeus; disc more or less flat between median and lateral carinae. Clypeus about one-third the length of the frons and ridged medially. Rostrum not attaining post-trochanters. Antennae with second segment globose. Ocelli distinct. Pronotum with a longitudinal carina between eye and tegula; disc broad, broader than long (1.2–1.3:1), much broader than long in midline (2.3–3.0:1), its lateral carinae convex and converging anteriad to meet obtusely, its posterior margin angulately excavate with a median indentation, both lateral and median carinae slightly raised and the disc flat between them with an impression on each side. Mesonotum with lateral carinae often sinuous for their posterior two-thirds and converging sharply anteriad in anterior one-third. Metatibiae with three lateral and seven apical spines, basal metatarsal segment with six apical spines. Tegmina opaque, well surpassing extremity of abdomen, about three times as long as broad, broadest at midway, costal margin convex, apex broadly rounded; costa distinct, costal area wider than costal cell



Figs 49–54. *Cyrtomycta perisema* spec. nov. 49. Head and thorax, dorsal view. 50. Head and prothorax, side view. 51. Frons. 52. Tegmen. 53. anal segment, pygofer and genital style of male, side view. 54. Aedeagus, from the right.



Figs 55–60. *Cuneiceps insularis* spec. nov. 55. Head and thorax, dorsal view. 56. Ditto, side view. 57. Tegmen. 58. Frons. 59. Pygofer, side view. 60. Aedeagus, from the left.

and with an array of transverse veins, costal cell with a few incomplete transverse veins arising from costa; Sc+R and M simple to node; Cu₁ forking before level of junction of claval veins, which is after the middle of the clavus; a line of transverse veins zigzagging across node; reticulate after node and with an irregular arc of transverse veins paralleling apical margin. Wings ample.

Anal segment of male short. Pygofer with dorsolateral angles produced. Genital styles with a large pointed prominence on dorsal margin proximally distad of which is a double-pronged spur with one tooth directed dorsad and the other laterad.

Pregenital sternite of female with posterior margin straight. Third valvulae of ovipositor with about seven inwardly directed teeth at apex.

***Cuneiceps insularis* spec. nov., figs 55–60**

Length, incl. tegmina, ♂ 6.5 mm, ♀ 8.0 mm.

Anal segment of male truncate apically in dorsal view. Pygofer with dorso-lateral angles blunt in profile. Aedeagus upcurved, laterally compressed, asymmetrical, the left lobe smaller than the right and with a small lateral knob-like protuberance, the right lobe with a large dorsal prominence near midway, both lobes apically truncate in profile.

Pale green. Disc of vertex and frons, and sometimes pronotum and mesonotum, dark green. Carinae of vertex and frons sanguineous. Carinae of pronotum and mesonotum, and tegminal veins, sometimes tinged sanguineous.

MATERIAL EXAMINED. MAURITIUS: ♂ Holotype, Trois Mamelles 13.i.72, coll. J.R.W. Paratypes 1 ♂ 22.ii.73, 1 ♀ 6.v.73, 2 ♀ 22.ii.75, same data as holotype; Macabé 1 ♂ 11.i.73, coll. J.R.W., 1 ♀ 2.ii.62, 3 ♀ 10.ii.64, coll. C. M. Courtois. RÉUNION: Mare Longue 2 ♀ xii.73, coll. J.R.W. & H. Dove. Holotype with 2 ♀ paratypes from Mauritius and 1 ♀ paratype from Réunion in British Museum (N.H.). Other paratypes in author's collection.

This is the only known Mascarene Tropiduchid with tegmina having a well-developed costal area with cross veins. It differs from *Daradaxoides* Distant, described from the Seychelles, by tegminal venation beyond the claval apex (Cu_{1b}), by the blunt dorsolateral angles of the pygofer, by details of aedeagal structure, and by the configuration of the head.

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I am grateful to Dr R. G. Fennah, formerly Director of the Commonwealth Institute of Entomology, London, for much helpful advice and to Dr A. Kaltenbach of the Naturhistorisches Museum, Vienna, for enabling me to borrow several valuable specimens collected and described in the mid-19th century. The aid of Mr H. Dove during collecting expeditions in Réunion Island and in Rodriguez Island is also gratefully acknowledged, as is the financial support provided by the Mauritius Sugar Industry Research Institute, without which those expeditions would not have been possible.

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